

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
29 March 2001 (29.03.2001)

PCT

(10) International Publication Number
WO 01/21768 A1

(51) International Patent Classification⁷: **C12N 5/04**,
15/09, 15/63, 15/64, 15/65, 15/67, 15/82, 15/87, 15/90,
A01H 1/00, 5/00

Street, Apt. A, Highland Park, NJ 08904 (US). **LUTZ, Kerry** [US/US]; 8 Liberty Place, Jackson, NJ 08527 (US).

(21) International Application Number: **PCT/US00/25930**

(74) Agents: **RIGAUT, Kathleen, D.** et al.; Dann, Dorfman, Herrell and Skillman, Suite 720, 1601 Market Street, Philadelphia, PA 19120 (US).

(22) International Filing Date:
21 September 2000 (21.09.2000)

(25) Filing Language: English

(26) Publication Language: English

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(30) Priority Data:
60/155,007 21 September 1999 (21.09.1999) US
60/211,139 13 June 2000 (13.06.2000) US

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (*for all designated States except US*): **RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY** [US/US]; Old Queens, Somerset Street, New Brunswick, NJ 08903 (US).

Published:

— *With international search report.*

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **MALIGA, Pal** [HU/US]; 72 Yorktown Road, East Brunswick, NJ 08816 (US). **CORNEILLE, Sylvie** [FR/US]; 305 Magnolia

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 01/21768 A1

(54) Title: SITE-SPECIFIC RECOMBINATION SYSTEM TO MANIPULATE THE PLASTID GENOME OF HIGHER PLANTS

(57) Abstract: A site specific recombination system and methods of use thereof are disclosed for manipulating the genome of higher plants.